

Serial No. 10/056,101

### **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **LISTING OF CLAIMS**

Claims 1-11, 13, 18, 20, 25-29, 31, 36, and 37 (Canceled).

12. (Previously presented) An anchored anti-rotation analog post for preparing dental crown for insertion into the mouth of patient, said analog post comprising:

an elongated pin having opposite top and bottom ends;

said pin having at least one anti-rotation anchoring projection extending discretely and radially from said pin near said bottom end thereof, wherein said at least one anchoring projection comprises a pair of opposing radially extending projections wherein said at least one pair of opposing radially extending anchoring projections comprises rigid loops.

14. (Previously presented) An anchored anti-rotation analog post for preparing dental crown for insertion into the mouth of patient, said analog post comprising:

an elongated pin having opposite top and bottom ends;

said pin having at least one anti-rotation anchoring projection extending discretely and radially from said pin near said bottom end thereof, wherein said at least one anchoring projection comprises a pair of opposing radially extending projections, wherein said at least one pair of opposing radially extending anchoring projections comprises rigid plates having a center slot, said center slot disposed in a matching slot disposed in the lower end of said pin, said lower-end pin slots for receiving and securing said rigid plates.

15. (Previously presented) An anchored anti-rotation analog post for preparing dental crown for insertion into the mouth of patient, said analog post comprising:

an elongated pin having opposite top and bottom ends;

said pin having at least one anti-rotation anchoring projection extending discretely and radially from said pin near said bottom end thereof, wherein said at least one anchoring

Serial No. 10/056,101

projection comprises a pair of opposing radially extending projections, wherein said at least one pair of opposing radially extending anchoring projections comprises rigid serrated barbs.

16. (Original) The device of Claim 15 wherein said barbs are tapered to have a smaller radial extension toward the lower end of said pin.

17. (Original) The device of Claim 15 wherein said barbs are tapered to have a smaller radial extension toward the upper end of said pin.

19. (Previously presented) An anchored anti-rotation analog post for preparing dental crown for insertion into the mouth of patient, said analog post comprising:

an elongated pin having opposite top and bottom ends;

said pin having at least one anti-rotation anchoring projection extending discretely and radially from said pin near said bottom end thereof wherein said at least one anchoring projection comprises at least two pairs of opposing radially extending projections, wherein said at least one pair of opposing radially extending anchoring projections comprises rigid loops.

21. (Previously presented) An anchored anti-rotation analog post for preparing dental crown for insertion into the mouth of patient, said analog post comprising:

an elongated pin having opposite top and bottom ends;

said pin having at least one anti-rotation anchoring projection extending discretely and radially from said pin near said bottom end thereof wherein said at least one anchoring projection comprises at least two pairs of opposing radially extending projections, wherein said at least one pair of opposing radially extending anchoring projections comprises rigid plates having a center slot, said center slot disposed in a matching slot disposed in the lower end of said pin, said lower-end pin slots for receiving and securing said rigid plates.

22. (Previously presented) An anchored anti-rotation analog post for preparing dental crown for insertion into the mouth of patient, said analog post comprising:

Serial No. 10/056,101

an elongated pin having opposite top and bottom ends;

said pin having at least one anti-rotation anchoring projection extending discretely and radially from said pin near said bottom end thereof wherein said at least one anchoring projection comprises at least two pairs of opposing radially extending projections, wherein said at least one pair of opposing radially extending anchoring projections comprises rigid serrated barbs.

23. (Original) The device of Claim 22 wherein said barbs are tapered to have a smaller radial extension toward the lower end of said pin.

24. (Original) The device of Claim 22 wherein said barbs are tapered to have a smaller radial extension toward the upper end of said pin.

30. (Previously presented) A method of preparing dental crowns efficiently and accurately, comprising the steps of

a. preparing an analog for a jaw implant supporting a dental crown mounting pin having at least one pair of radially extending anchoring extensions disposed near a bottom end of said pin wherein said at least one pair of opposing radially extending anchoring projections comprises rigid loops;

b. inserting bottom-end-down said prepared mounting pin into a dental crown casting mold wherein said pin comprises at least one pair of anchoring projections oppositely and radially extending from a bottom end of said pin;

c. securing said prepared mounting pin temporarily in place within said casting mold;

d. adding settable ~~plastic~~ plaster molding material to said casting mold so as to embed said bottom end of said pin by surrounding said bottom end of said pin with said ~~plastic~~ plaster molding material; and

e. allowing said ~~plastic~~ plaster molding material to set and harden with said prepared pin embedded within said plaster molding material.

Serial No. 10/056,101

32. (Previously presented) A method of preparing dental crowns efficiently and accurately, comprising the steps of

- a. preparing an analog for a jaw implant for a dental crown mounting pin having at least one pair of radially extending anchoring extensions disposed near a bottom end of said pin wherein said pin comprises at least one pair of anchoring projections oppositely and radially extending from a bottom end of said pin, wherein said at least one pair of opposing radially extending anchoring projections comprises rigid plates having a center slot, said center slot disposed in a matching slot disposed in the lower end of said pin, said lower-end pin slots for receiving and securing said rigid plates;
- b. inserting bottom-end-down said prepared mounting pin into a dental crown casting mold;
- c. securing said prepared mounting pin temporarily in place within said casting mold;
- d. adding settable ~~plastic~~ plaster molding material to said casting mold so as to embed said bottom end of said pin by surrounding said bottom end of said pin with said ~~plastic~~ plaster molding material; and
- e. allowing said ~~plastic~~ plaster molding material to set and harden with said prepared pin embedded within said plaster molding material.

33. (Previously presented) A method of preparing dental crowns efficiently and accurately, comprising the steps of

- a. preparing an analog for a jaw implant supporting a dental crown mounting pin having at least one pair of radially extending anchoring extensions disposed near a bottom end of said pin wherein said pin comprises at least one pair of anchoring projections oppositely and radially extending from a bottom end of said pin, wherein said at least one pair of opposing radially extending anchoring projections comprises rigid serrated barbs;
- b. inserting bottom-end-down said prepared mounting pin into a dental crown casting mold;

Serial No. 10/056,101

- c. securing said prepared mounting pin temporarily in place within said casting mold;
- d. adding settable ~~plastic~~ plaster molding material to said casting mold so as to embed said bottom end of said pin by surrounding said bottom end of said pin with said ~~plastic~~ plaster molding material; and
- e. allowing said ~~plastic~~ plaster molding material to set and harden with said prepared pin embedded within said plaster molding material.

34. (Original) The method of Claim 33 wherein said barbs are tapered to have a smaller radial extension toward the lower end of said pin.

35. (Original) The method of Claim 33 wherein said barbs are tapered to have a smaller radial extension toward the upper end of said pin.

38. (Previously presented) A method of preparing dental crowns efficiently and accurately, comprising the steps of

- a. preparing an analog for a jaw implant supporting a dental crown mounting pin having at least one pair of radially extending anchoring extensions disposed near a bottom end of said pin, wherein said at least one pair of opposing radially extending anchoring projections comprises rigid plates having a center slot, said center slot disposed in a matching slot disposed in the lower end of said pin, said lower-end pin slots for receiving and securing said rigid plates, wherein said pin comprises at least two pairs of anchoring projections oppositely and radially extending from a bottom end of said pin and wherein said at least two pairs of said projections are spaced apart longitudinally on said pin near said bottom end thereof;
- b. inserting bottom-end-down said prepared mounting pin into a dental crown casting mold;
- c. securing said prepared mounting pin temporarily in place within said casting mold;

Serial No. 10/056,101

d. adding settable ~~plastic~~ plaster plastic molding material to said casting mold so as to embed said bottom end of said pin by surrounding said bottom end of said pin with said ~~plastic~~ plaster molding material; and

e. allowing said ~~plastic~~ plaster molding material to set and harden with said prepared pin embedded within said plaster molding material.

39. (Previously presented) A method of preparing dental crowns efficiently and accurately, comprising the steps of

a. preparing an analog for a jaw implant supporting a dental crown mounting pin having at least one pair of radially extending anchoring extensions disposed near a bottom end of said pin, wherein said at least one pair of opposing radially extending anchoring projections comprises rigid serrated barbs, wherein said pin comprises at least two pairs of anchoring projections oppositely and radially extending from a bottom end of said pin and wherein said at least two pairs of said projections are spaced apart longitudinally on said pin near said bottom end thereof;

b. inserting bottom-end-down said prepared mounting pin into a dental crown casting mold;

c. securing said prepared mounting pin temporarily in place within said casting mold;

d. adding settable ~~plastic~~ plaster material to said casting mold so as to embed said bottom end of said pin by surrounding said bottom end of said pin with said ~~plastic~~ plaster molding material; and

e. allowing said ~~plastic~~ plaster molding material to set and harden with said prepared pin embedded within said plaster molding material.

40. (Original) The method of Claim 39 wherein said barbs are tapered to have a smaller radial extension toward the lower end of said pin.

Serial No. 10/056,101

41. (Original) The method of Claim 39 wherein said barbs are tapered to have a smaller radial extension toward the upper end of said pin.
42. (New) An anchored anti-rotation analog post for preparing dental crown for insertion into the mouth of patient, said analog post comprising:  
an elongated pin having opposite top and bottom ends;  
said pin having a plurality of anti-rotation anchoring projections extending discretely and radially from said pin near said bottom end thereof, wherein some anti-rotation anchoring projections in said plurality are not parallel with other anti-rotation anchoring projections in said plurality.
43. (New) The device of claim 42 wherein said pin has a circular cross-section.
44. (New) The device of claim 42 wherein said pin has an elliptical cross-section.
45. (New) The device of claim 42 wherein said pin has a polygonal cross-section.
46. (New) The device of claim 45 wherein said pin has a triangular cross-section.
47. (New) The device of claim 45 wherein said pin has a square cross-section.
48. (New) The device of claim 45 wherein said pin has a rectangular cross-section.
49. (New) The device of claim 45 wherein said pin has a hexagonal cross-section.
50. (New) The device of Claim 42 wherein said plurality of anchoring projection comprises at least two pairs of opposing radially extending projections.

Serial No. 10/056,101

51. (New) The device of Claim 42 wherein said plurality comprises at least two pairs of said opposing radially extending projections are spaced apart longitudinally on said pin near said bottom end thereof.
52. (New) The device of Claim 42 wherein said plurality of anchoring projections comprises rigid rods.
53. (New) The device of Claim 50 wherein said at least two pairs of opposing radially extending anchoring projections comprise rigid rods.
54. (New) The device of claim 42 wherein said pin comprises a receptacle sleeve for securely receiving a conventional dental crown analog post.
55. (New) The device of claim 50 wherein said pin comprises a receptacle sleeve for securely receiving a conventional dental crown analog post.
56. (New) A method of preparing dental crowns efficiently and accurately, comprising the steps of:
  - a. preparing an analog dental disposed near a bottom end of said pin, wherein some anti-rotation anchoring projections in said plurality are not parallel with other anti-rotation anchoring projections in said plurality;
  - b. inserting bottom-end-down said prepared mounting pin into a dental crown casting mold;
  - c. securing said prepared mounting pin temporarily in place within said casting mold;
  - d. adding settable ~~plastic~~ plaster molding material to said casting mold so as to embed said bottom end of said pin by surrounding said bottom end of said pin with said ~~plastic~~ plaster molding material; and



Serial No. 10/056,101

- e. allowing said ~~plastic~~ plaster molding material to set and harden with said prepared pin embedded within said plaster molding material.
57. (New) The method of claim 56 wherein said plurality comprises at least two pairs of anchoring projections spaced apart longitudinally on said pin near said bottom end thereof.
58. (New) The method of claim 57 wherein said at least one pair of opposing radially extending anchoring projections comprises rigid loops.
59. (New) The method of claim 57 wherein said at least one pair of opposing radially extending anchoring projections comprises rigid rods.
60. (New) A method of preparing dental crowns efficiently and accurately, comprising the steps of
- a. preparing an analog for supporting a dental crown mounting pin having a plurality of oppositely and radially extending anchoring projections disposed near a bottom end of said pin, wherein said plurality of anchoring projections comprises rigid rods, wherein some rigid rods in said plurality are not parallel with other rigid rods in said plurality;
  - b. inserting bottom-end-down said prepared mounting pin into a dental crown casting mold;
  - c. securing said prepared mounting pin temporarily in place within said casting mold;
  - d. adding settable ~~plastic~~ plaster molding material to said casting mold so as to embed said bottom end of said pin by surrounding said bottom end of said pin with said ~~plastic~~ plaster molding material; and
  - e. allowing said ~~plastic~~ plaster molding material to set and harden with said prepared pin embedded within said plaster molding material.

Serial No. 10/056,101

61. (New) An anchored anti-rotation analog post for preparing dental crown for insertion into the mouth of patient, said analog post comprising:  
an elongated pin having opposite top and bottom ends;  
said pin having a plurality of anti-rotation anchoring projections extending discretely and radially from said pin only near said bottom end thereof.
62. (New) The device of claim 61 wherein said pin has a circular cross-section.
63. (New) The device of claim 61 wherein said pin has an elliptical cross-section.
64. (New) The device of claim 61 wherein said pin has a polygonal cross-section.
65. (New) The device of claim 64 wherein said pin has a triangular cross-section.
66. (New) The device of claim 64 wherein said pin has a square cross-section.
67. (New) The device of claim 64 wherein said pin has a rectangular cross-section.
68. (New) The device of claim 64 wherein said pin has a hexagonal cross-section.
69. (New) The device of Claim 61 wherein said plurality of anchoring projection comprises at least two pairs of opposing radially extending projections.
70. (New) The device of Claim 61 wherein said at least two pairs of said opposing radially extending projections are spaced apart longitudinally on said pin near said bottom end thereof.
71. (New) The device of Claim 61 wherein said plurality of anchoring projections comprises rigid rods.

Serial No. 10/056,101

72. (New) The device of Claim 69 wherein said at least two pairs of opposing radially extending anchoring projections comprise rigid rods.
73. (New) The device of claim 61 wherein said pin comprises a receptacle sleeve for securely receiving a conventional dental crown analog post.
74. (New) The device of claim 69 wherein said pin comprises a receptacle sleeve for securely receiving a conventional dental crown analog post.
75. (New) A method of preparing dental crowns efficiently and accurately, comprising the steps of
- a. preparing an analog dental crown mounting pin having a plurality of radially extending anchoring projections disposed only near a bottom end of said pin;
  - b. inserting bottom-end-down said prepared mounting pin into a dental crown casting mold;
  - c. securing said prepared mounting pin temporarily in place within said casting mold;
  - d. adding settable ~~plastic~~ plaster molding material to said casting mold so as to embed said bottom end of said pin by surrounding said bottom end of said pin with said ~~plastic~~ plaster molding material; and
  - e. allowing said ~~plastic~~ plaster molding material to set and harden with said prepared pin embedded within said plaster molding material.
76. (New) The method of claim 75 wherein said plurality comprises at least two pairs of anchoring projections spaced apart longitudinally on said pin near said bottom end thereof.

Serial No. 10/056,101

77. (New) The method of claim 76 wherein said at least one pair of opposing radially extending anchoring projections comprises rigid loops.
78. (New) The method of claim 76 wherein said at least one pair of opposing radially extending anchoring projections comprises rigid rods.
79. (New) A method of preparing dental crowns efficiently and accurately, comprising the steps of
- a. preparing an analog for supporting a dental crown mounting pin having a plurality of oppositely and radially extending anchoring projections disposed near a bottom end of said pin, wherein said plurality of anchoring projections comprises rigid rods, wherein some rigid rods in said plurality are not parallel with other rigid rods in said plurality;
  - b. inserting bottom-end-down said prepared mounting pin into a dental crown casting mold;
  - c. securing said prepared mounting pin temporarily in place within said casting mold;
  - d. adding settable ~~plastic~~ plaster molding material to said casting mold so as to embed said bottom end of said pin by surrounding said bottom end of said pin with said ~~plastic~~ plaster molding material; and
  - e. allowing said ~~plastic~~ plaster molding material to set and harden with said prepared pin embedded within said plaster molding material.